

CLAIMS

What Is Claimed Is:

1. A system for monitoring processes of an information
5 technology (IT) system, the system comprising:

a monitor agent configured to collect performance and

availability metrics associated with at least one of

a host machine, a network, an operating system, a

database, and an application;

10 a data loader, wherein the monitor agent is further

configured to transmit the metrics to the data

loader;

an escalation server configured to receive and manage

alerts generated by the monitor agent, and further
15 configured to group an alert entering the escalation

server into a resource group; and

an analysis tool including an analysis tool application

configured to assist a system manager in visualizing

and understanding the performance of the information
20 technology system through the use of at least one of

a visual graph, a performance report, a real-time

operating status, and a system health report.
2. The system of Claim 1, wherein the metrics are
25 transmitted to the data loader by way of one of HTTP,

HTTPS, and SMTP.

3. The system of Claim 2, wherein the metrics are transmitted to the data loader as a serialized XML stream, and wherein the data loader is further configured to deserialize the XML stream.

4. The system of Claim 3, wherein the data loader is further configured to store each metric received from the monitor agent and to relate each metric with previously collected metrics associated with one of a same host machine, a same network, a same operating system, a same database, and a same application.

5. The system of Claim 4, further comprising an in-memory caching system configured to lookup metric-host groupings while minimizing database traffic.

6. The system of Claim 1, wherein the resource group is one of data related alerts, application related alerts, and operating system alerts.

7. The system of Claim 1, wherein the analysis tool includes at least one of:

a data aggregation processing application;

a custom graphing engine;

a reporting engine; and

a web portal.

8. The system of Claim 1, wherein the analysis tool
5 application includes at least one of:

a data aggregation processing application;

a custom graphing engine;

a reporting engine; and

a web portal.

10

9. The system of Claim 1, wherein the analysis tool is
configured to convert raw measurement data into aggregate
data for various time intervals, wherein aggregated data
includes aspects of the raw measurement data for a given
15 duration, the aspects including at least one of a
minimum, a maximum, a mean, a median, a standard
deviation, a skew, a kurtosis, and a percentile.

15

10. The system of Claim 1, wherein the analysis tool is
20 driven by a rollup daemon, the rollup daemon being a
scaleable, distributable sub-system that processes
incoming raw data and summarizes the incoming raw data
according to time intervals specified by a given metric's
assigned generic data category.

20

11. A method of monitoring processes of an information technology (IT) system, the method comprising:

collecting via a monitor agent performance and

5 availability metrics associated with at least one of
a host machine, a network, an operating system, a
database, and an application;

transmitting the metrics from the monitor agent to a data
loader;

10 transmitting alerts from the monitor agent to an
escalation server, wherein the escalation server is
configured to group an alert entering the escalation
server into a resource group; and

analyzing the metrics and alerts using an analysis tool

15 that includes an analysis tool application
configured to assist a system manager in visualizing
and understanding the performance of the information
technology system through the use of at least one of
a visual graph, a performance report, a real-time
20 operating status, and a system health report.

12. The method of Claim 11, wherein the step of transmitting
the metrics comprises serializing the metrics into an XML
stream.

25

13. The method of Claim 12, further comprising:

storing each transmitted metric; and

relating each transmitted metric with previously

collected metrics associated with one of a same host

5 machine, a same network, a same operating system, a
same database, and a same application.

14. The method of Claim 11, wherein the steps of the method

are stored on a computer-readable medium as one or more

10 instructions, wherein the one or more instructions, when
executed by one or more processors, cause the one or more
processors to perform the steps of the method.

15. A data loader of a processes monitoring system for an

15 information technology (IT) system, wherein the data
loader is configured to receive metrics on a host machine
from a monitor agent, wherein the metrics are described
in a data repository according to a hierarchical metric
taxonomy that conceptually relates classes of metrics
20 with one another.

16. The data loader of Claim 15, wherein the data loader is

further configured to store each metric received from the
monitor agent and to relate each metric with previously

25 collected metrics sharing a same host machine.

17. The data loader of Claim 15, wherein the data loader is further configured to receive XML serialized metrics on the host machine from the monitor agent, wherein the data loader is further configured to deserialize the XML serialized metrics.

18. The data loader of Claim 15, wherein each metric is configured to be grouped into a branch of one of:

data related to the host operating system;

data related to the host machine;

data related to a host application; and

data related to a host database.

19. The data loader of Claim 18, wherein each branch is configured to be refined and classified into one or more sections, wherein one or more metric paths to each section are associated with individual hosts for which corresponding data is collected, wherein collected data is configured to be cataloged to a particular metric path and individual host, wherein the collected data is configured to be retrievable for subsequent analysis.

20. The data loader of Claim 15, wherein individual metric paths that describe data gathered for a particular host

are tied to a generic data path, wherein the generic data path is not tied to any host and describes a general family of metric paths.